

155mm ERBB

EXTENDED RANGE
BASE BLEED —
TECHNICAL
SPECIFICATIONS

BALLISTIC & PHYSICAL SPECIFICATIONS

Steel Type	Forged, High Fragmentation
Shell Weight (filled) with Fuze	47 ± kg
Shell Height with Fuze	867 mm
Explosive	9.5 kg TNT
Fuze	M557, M572 or equivalent
Primer	M82 or equivalent
Max Pressure	3,040 – 3250 bar subject to weapon configuration
Muzzle Velocity	900– 910 m/s subject to weapon configuration
Range (52 cal)	38.4+ km (M203 Charge 8)
Compatibility	All JBMoU weapons



INTERARMA
— ADVISORY —

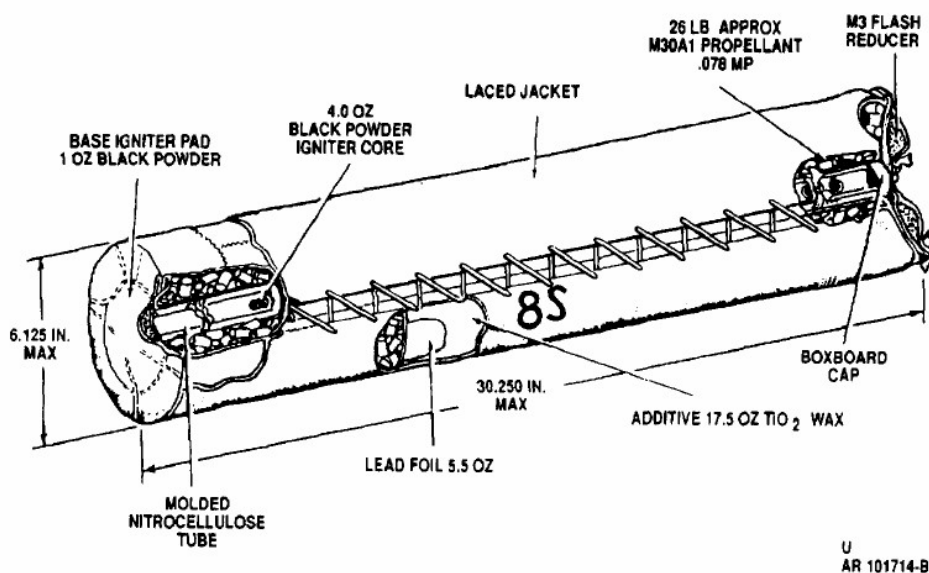


APEXDEF
— GROUP LLC —

155mm ERBB

M203 PROPELLING CHARGE

The M203 Propelling Charge is a single-increment red bag charge, approximately 30¼ inches in length, containing approximately 26 pounds of M30A1 propellant. When fired from a 52-caliber system with compatible low-drag ERBB projectiles, the system is capable of achieving 38.4 km range performance. A red cloth igniter pad containing 1 ounce of black powder is sewn to the base of the charge. A central ignition core extends through the center of the charge for almost its entire length. This ignition core consists of a nitrocellulose paper tube containing a bag of black powder which is sewn to the base igniter. A liner consisting of a cloth side impregnated with titanium dioxide and wax, and a lead side lines the forward end of the charge. Four tie straps sewn to the base of the charge run the length of the charge and are tied to the forward end of the charge. A donut shaped flash reducer is inserted under the tie straps at the forward end of the charge. A cylindrical jacket is placed over the charge length and tightly laced. This lacing jacket serves to provide necessary rigidity and structural stability of the assembled charge, and serves to differentiate the 8S from the MI19/MI19AI Zone 8 charge.

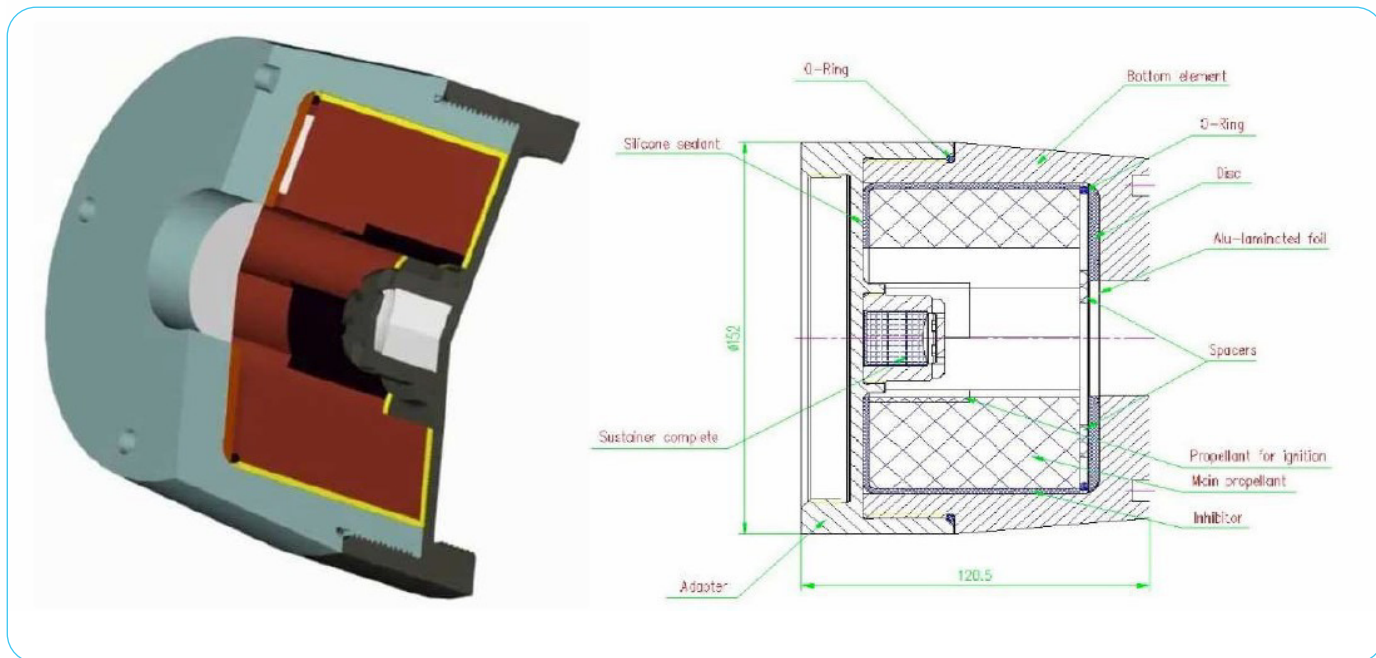


M203 Propelling Charge — Component Diagram (AR 101714-B)

COMPONENT DESCRIPTION

- Comprised of an igniter assembly, main charge, and flash reducer.
- The Igniter Assembly consists of three parts: base igniter pad, rigid center core tube, and center core bag.
- The base igniter pad contains 1 oz of Black Powder sewn to the center core bag. The center core bag contains 4 oz of Black Powder.
- The central core tube is a molded 27-inch Nitrocellulose paper tube extending through the center of the charge lengthwise. A wax liner (cloth side impregnated with Titanium Dioxide-based wax) acts as the tube wear reducer. A lead foil sheath at the forward end serves as the decoppering agent.
- The Flash Reducer is donut-shaped and contains 16 oz of Potassium Nitrate.

BASE BLEED UNIT



M203 Propelling Charge — Component Diagram (AR 101714-B)

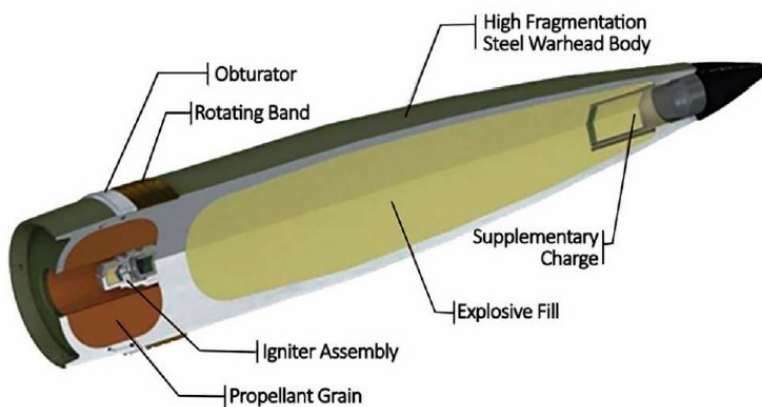
COMPONENT DESCRIPTION

- The gas-generator propellant (used in a grain as a main propellant) is a modern thermoplastic composite propellant
- Second propellant used is to ensure reliable ignition of the main propellant.
- ~23 second burn time
- Final design and pairing with shell are on-going pending contract.

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M795E ER BB

The M795E ER BB is a 46kg 155mm high fragmentation steel (HF1) body projectile filled with 9.5 kg of TNT. This is a high fragmentation body with a streamlined ogive and drag-reducing base burner.



M795E ERBB Shell – Component Diagram

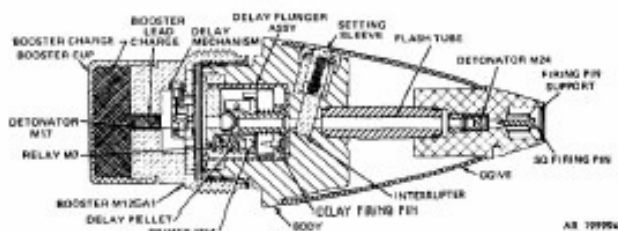
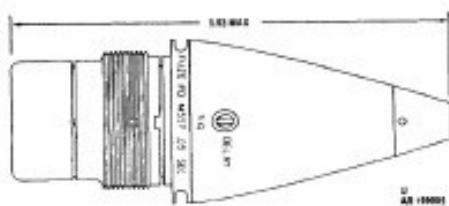
COMPONENT DESCRIPTION

- Comprised of HF-1 steel in compliance with MIL-s-707703 and MIL-S-50783 standards
- Projected Max Range + 39 km
- When the weapon is fired, the rotating band engages the barrel rifling to impart spin to the projectile for stability in flight. The obturator behind the rotating band forms a seal to prevent leakage of gas pressure past the projectile.
- Gilded metal rotating band for compatibility with all current and future towed and self-propelled 155mm howitzers
- On gun launch propellant gases enter the base burner cavity and ignite the dual tracer cups in the igniter assembly. The tracer cups then light the composite propellant grain and sustain the burning at muzzle exit. The base burner gases fill the vacuum at the base of the projectile, reducing the base drag and resulting in extended ranges.

155mm ERBB

PD M557 FUZE

FUZE, POINT DETONATING: M557



M557 Fuze — External View and Internal Cross-Section (AR 199994 / AR 199995)

M557 TECHNICAL SPECIFICATIONS

Fuze Function	Mechanical, PD-Delay (0.05 s)
Total Weight	Approx. 975 g
Total Height	151.6 mm (max)
SAD Non-Setting / Setting	1,000 / 2,500 RPM
Safety Distance from Muzzle	≥ 50 m
Thread	2" – 12
Booster Explosive	M125A1 — Approx. 22 g RDX/Tetryl

M82 PRIMER

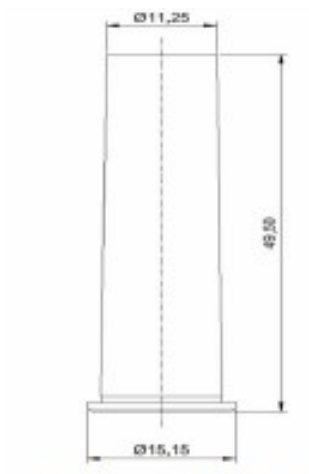


Figure 2 — M82 Dimensions

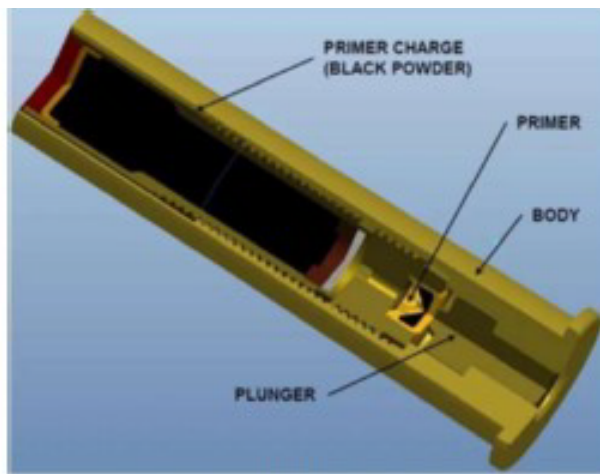


Figure 3 — M82 Internal Cutaway

M82 TECHNICAL SPECIFICATIONS

Type	Percussion Primer
Weight	64 gr
Length (total max)	49.5 mm
Charge and Weight	Black Powder, 22 grains
Case Material	Brass